Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A heat exchanger for motor vehicles, the heat exchanger being formed from interconnected plates, there being formed between the plates cavities which are closed off outwardly and through which a first and a second medium flow alternately in each case via at least one inflow line and outflow line, the plates being profiled in such a way that, between the respective profiles of the plates, contact points occur, in the region of which the plates are fastened to one another, wherein the profiles of the plates and their contact points are designed in such a way that the flow, formed between the plates, of the first and the second medium from the corresponding inflow line to the corresponding outflow line does not run rectilinearly,

wherein each of the plates ~~have a recurring wavy profile~~ has a plurality of columns of nested elbow patterns each column running in a length direction of the interconnected plates, each of the plurality of elbow patterns comprising rectilinear legs ~~running rectilinearly between~~ connected by regions of curvature.

Claims 2-4 (Cancelled).

5. (Currently amended) The heat exchanger as claimed in ~~claim 2~~ claim 1 wherein the ~~wavy profile has~~ plurality of nested elbow patterns have a flat region on the

outside of a wave back.

6. (Currently amended) The heat exchanger as claimed in claim 5 wherein the flat region is between 0.1 mm and 0.4 mm in a cross section of the ~~wavy profile~~ legs.

7. (Currently amended) The heat exchanger as claimed in ~~claim 3~~ claim 1, wherein ~~the leg~~ an angle formed by legs of one of the nested elbow patterns is between 45° and 135°.

8. (Currently amended) The heat exchanger as claimed in ~~claim 3~~ claim 1 wherein ~~the profile~~ a depth of the plurality of nested elbow patterns is, in the case of liquid media between 0.5 mm and 1 mm and in the case of gaseous media between 0.6 mm and 2 mm.

9. (Currently amended) The heat exchanger as claimed in ~~claim 3~~ claim 1, wherein ~~the leg~~ a length of the legs is in the range of 8 mm to 15 mm.

10. (Currently amended) The heat exchanger as claimed in ~~claim 2~~ claim 1, wherein the ~~wavy profile is designed as an embossing~~ plurality of nested elbow patterns comprise embossings in the plate, the plates comprising aluminum and being coated on at least one side with soldering aid material.

11. (Previously presented) The heat exchanger as claimed in claim 1, wherein

the plates have as inflow lines and outflow lines in each case a pair of bores perpendicularly with respect to the plate plane, the bores being raised with respect to the basic plane in such a way that there is a fluidic connection from one of the two bores alternately only to every second plate interspace.

12. (Currently amended) The heat exchanger as claimed in claim 11, wherein the raised region of at least some of the bores is surrounded by a region preferably leading around annularly and free of ~~wavy profile~~ the plurality of nested elbow patterns.

13. (Currently amended) The heat exchanger as claimed in claim 12, wherein the region of the bores assigned to the inflow lines, distributor ducts are provided, which are defined ~~preferably by a wavy profile~~ by a first portion of one of the nested elbow patterns with a leg angle which is increased, as compared with the leg angle of ~~the wavy profile~~ a second portion of the nested elbow patterns spaced from the region of the bores.

14. (Previously presented) The heat exchanger as claimed in claim 11, wherein the bores assigned to the inflow lines are oval, elliptical or rectangular.

15. (Currently amended) The heat exchanger as claimed in ~~claim 2~~ claim 1, wherein two plates different from one another in terms of the ~~wavy profile~~ plurality of nested elbow profiles are used alternately, the ~~wavy profiles~~ nested elbow patterns of the two plates differing from one another at least in terms of one of the features

comprising leg length, leg angle and profile depth.

16. (Currently amended) The heat exchanger as claimed in ~~claim 2~~ claim 1, wherein the ~~wavy profile~~ nested elbow patterns of one side of the plate ~~differs~~ differ from the ~~wavy profile~~ nested elbow pattern of the other side of the plate at least in terms of one of the features comprising leg length, leg angle and profile depth.

17. (Currently amended) The heat exchanger as claimed in ~~claim 2~~ claim 1, wherein the ~~wavy profiles~~ nested elbow patterns of adjacent plates are identical to one another.

18. (Previously presented) The heat exchanger as claimed in claim 1, wherein the heat exchanger is formed from a stack of plates, the plates corresponding to one another and being arranged so as to be rotated alternately through 180° with respect to one another.

19. (Currently amended) The heat exchanger particularly as claimed in ~~claim 2~~ claim 18, wherein the plates have a bent edge, the edges of adjacent plates bearing one against the other and being connected to one another by brazing.

20. (Previously presented) The heat exchanger as claimed in claim 19, wherein the bent edges of a plurality of plates mutually overlap.

21. (Currently amended) The heat exchanger as claimed in claim 19, wherein the ~~wavy profile~~ nested elbow profile extends into the edge.

22. (Currently amended) ~~The heat exchanger as claimed in claim 19,~~ A heat exchanger for motor vehicles, the heat exchanger being formed from interconnected plates, there being formed between the plates cavities which are closed off outwardly and through which a first and a second medium flow alternately in each case via at least one inflow line and outflow line, the plates being profiled in such a way that, between the respective profiles of the plates, contact points occur, in the region of which the plates are fastened to one another, wherein the profiles of the plates and their contact points are designed in such a way that the flow, formed between the plates, of the first and the second medium from the corresponding inflow line to the corresponding outflow line does not run rectilinearly,

wherein the plates have a recurring wavy profile which extends essentially transversely with respect to the main throughflow direction (H),

wherein the plates have a bent edge, the edges of adjacent plates bearing one against the other and being connected to one another by brazing; and

wherein between the end of the wavy profile and the edge, a profile-free bending portion is formed, the width of which is smaller than 2 mm and is determined in such a way that, during the brazing of the plates, ~~the bending region is blocked with solder in wave crest portions in such a way that~~ a throughflow of medium in the bending portion is reduced or essentially prevented.

23. (Previously presented) The heat exchanger as claimed in claim 11, wherein at least one end face of the heat exchanger is assigned a closing plate which is profileless at least on the outside and which has connection points for a first and second medium, said connection points issuing into connecting lines and being arranged in alignment with the bores.

24. (Currently amended) The heat exchanger as claimed in claim 1, wherein the hydraulic diameter (hD) in ~~the~~ a main direction of extent (D) has a fluctuation of 10% to 25% around an average value.

25. (Currently amended) The heat exchanger as claimed in claim 1, wherein the hydraulic diameter (hD) has an average value of~~, in the case of liquid media,~~ either between 1 mm and 2 mm~~, and, in the case of gaseous media,~~ or around 3 mm.

26. (Currently amended) The heat exchanger as claimed in claim 1, ~~A heat exchanger, in particular oil cooler, for motor vehicles, the heat exchanger being formed from interconnected plates, there being formed between the plates cavities which are closed off outwardly and through which a first and a second medium flow alternately in each case via at least one inflow line and outflow line, the plates being profiled in such a way that, between the respective profiles of the plates, contact points occur, in the region of which the plates are fastened to one another, wherein the profiles of the plates and their contact points are designed in such a way that the flow, formed between the plates, of the first and the second medium from the corresponding inflow~~

~~line to the corresponding outflow line does not run rectilinearly,~~

wherein the contact points between two plates adjacent to one another are distributed uniformly over the plate surface.

27. (Previously presented) The heat exchanger as claimed in claim 1, wherein the contact points between two plates adjacent to one another have a surface density of 4 to 7 per cm^2.

28. (Previously presented) The heat exchanger as claimed in claim 1, wherein a phase transition of a medium takes place in plate interspaces.

29. (Previously presented) The heat exchanger as claimed in claim 1, wherein the installation position of the heat exchanger is determined such that the transverse distribution of the medium in the plate interspaces is assisted by gravitation.

30. (Previously presented) A method for the production of a heat exchanger as claimed in claim 1, wherein the method comprises the steps of embossing the plates, of stacking the plates one on the other and of fastening them to one another, by brazing.

31. (Previously presented) The method as claimed in claim 30, wherein the stacking of the plates one on the other takes place such that two adjacent plates are in each case rotated through 180 degrees with respect to one another.

32. (Currently amended) The method as claimed in claim 30, wherein brazing takes place in such a way that the plates are connected sealingly to one another at their edge, a connection of adjacent plates to one another at contact points of ~~wavy profiles~~ nested elbow patterns taking place at the same time.

33. (Currently amended) The heat exchanger as claimed in claim 1, wherein said ~~wavy profile includes~~ plurality of nested elbow patterns include at least three regions of curvature and at least four legs.

34. (Currently amended) The heat exchanger as claimed in claim 1, wherein the plates have first and second opposite side edges and first and second opposite end edges and wherein said ~~wavy profile extends~~ plurality of nested elbow profiles extend from said first side edge to said second side edge and from said first end edge to said second end edge.

35. (Currently amended) The heat exchanger as claimed in claim 34, including at least two openings interrupting said ~~wavy profile~~ plurality of nested elbow patterns.

36. (Previously presented) A heat exchanger for motor vehicles formed from interconnected plates, there being formed between the plates cavities connected to at least one inflow line and at least one outflow line to define first and second alternating flow paths,

the plates being embossed with a zig-zag profile comprising leg portions

connected by curved portions, the leg portions in section comprising ridges having flat tops and valleys having flat bottoms, portions of said flat tops of a first one of said plates contacting portions of the flat bottoms of an adjacent one of said plates at contact points, said contact points being arranged to prevent fluid from flowing between the first one of said plates and the second one of said plates rectilinearly from the inflow line to the outflow line.

37. (New) The heat exchanger as claimed in claim 1, wherein legs of nested elbow patterns in adjacent columns are connected by curved embossment portions.

38. (New) The heat exchanger as claimed in claim 37 wherein a first column of said plurality of columns is centered on a centerline of one of the plates, a second column of said plurality of columns is disposed on a first side of said first column and a third column of said plurality of columns is disposed on a side of said first column opposite from said second column.

39. (New) The heat exchanger as claimed in claim 1, wherein a section through the legs of one of the columns includes ridges having flat tops and valleys having flat bottoms.